

Claims

1. A process for the production of chewable coated cores by hard panning of chewable cores in a coating pan or drum wherein a syrup containing crystallizable polyol(s) and/or sugar(s) is intermittently sprayed over a rotating bed of the cores and the cores are dried between sprayings with a flow of air, characterized in that the drying of the cores between sprayings is controlled by controlling parameters of the drying air in such a way as to intentionally leave a substantial residual moisture in the drying coating layer at the start of a subsequent spraying phase.
2. A process according to claim 1, wherein said drying air parameters are selected from air humidity, air temperature, air flow speed, air flow time and air flow direction, or a combination of any of these.
3. A process according to claim 2, wherein said parameter comprises the relative humidity of said drying air at the outlet of said pan or drum.
4. A process according to claim 2 or 3, wherein said parameter comprises the temperature of said drying air at the inlet of said pan or drum.
5. A process according to claim 3, wherein the relative humidity of the outlet air when starting said subsequent spraying is higher than the basic relative humidity level.
6. A process according to claim 1, wherein there are a large number of coating cycles and each coating cycle comprises a syrup application phase, an optional pause phase and a drying phase.
7. A process according to claim 3, wherein the flow of drying air to said bed is stopped before the drying is completed and the relative humidity of the outlet air is 1-10 percentages, preferably more than 3 percentages, most preferably 4-8 percentages higher than its basic level.
8. A process according to claim 6, wherein the direction of the air during at least a part of said drying phases is direct, i.e. with the air flowing from above the bed through the product.

9. A process according to claim 1, wherein the coating syrup contains about 40 to 80% of the total weight of a polyol selected from xylitol, sorbitol, maltitol and isomalt or a mixture thereof.
10. A process according to claim 9, wherein the polyol is xylitol.
11. A process according to claim 10, wherein the temperature of the bed of chewable cores is raised to a temperature of 25 to 45 °C, preferably 30 to 40 °C, for at least a part the total coating procedure, and the drying during said part of the procedure is performed with air having an inlet temperature of 25 to 75°C, preferably 30 to 65°C,
12. A process according to claim 11, wherein the bed temperature is 33 to 40 °C.
13. A process according to claim 11, wherein the inlet air temperature is 40 to 50 °C.
14. A process according to claim 11, wherein the coating syrup temperature is 40 to 80 °C.
15. A process according to claim 1, wherein the coating syrup contains about 40 to 80% of the total weight of a sugar selected from saccharose, fructose and glucose.
16. A process according to claim 1, wherein the coating syrup contains 1 to 20% of a gum such as Gum Arabic of the total weight.
17. A process according to claim 9, wherein the coating syrup contains other polyols, flavors, pigments, special sweeteners and/or insoluble additives.
18. A process according to claim 1, wherein the coating syrup contains dissolved and/or suspended xylitol, sorbitol, lactitol, maltitol, isomalt and/or mannitol.
19. A process according to claim 1, wherein the coating of the chewable cores is started by an initial coating sequence having a bed temperature lower than the bed temperature during the residual moisture retaining drying procedure.
20. A process according to claim 1, wherein the coating of the chewable cores is finished by an end coating sequence having a bed temperature lower than the bed temperature during said residual moisture retaining drying procedure.

21. A process according to claim 19 or 20, wherein the direction of the flow of air during the initial and/or the end coating is reverse (flows from below the bed through the product).
22. A process according to claim 2, wherein the direction of the air flow, the air flow speed, the air flow time and/or the temperature of the air is changed several times during the coating procedure.
23. A process according to claim 1, wherein the fully coated cores are tempered after the coating for a time sufficient to allow crystallization of the polyol(s) and/or sugar(s) in said coating to provide a crunchy hard coating.
24. A process according to claim 1, wherein said core comprises chewing gum.